

REMARKS

This is a response to the Office Action of January 8, 2004. This response is submitted on June 8, 2004 accompanied by a petition for a two-month extension of time and the requisite small entity fee.

Applicant cancels claims 1-19 and submits new claims 20-32. It is submitted that the claims presented herein overcome the objections and rejections applicable to claims 1-19.

Applicant has canceled all of the previously-filed claims and submits 13 new claims which further clarify the inventive subject matter. The claims are based on the application as filed, and on information and belief, Applicant certifies that they do not add new matter.

Basis for the claims is found throughout the application, and at least as follows. Paragraph numbers are keyed to the paragraphs patent application publication:

Claim 20: Paragraphs [0015]-[0017]
Claim 21: Paragraph [0111] and Fig. 8
Claim 22: Paragraphs [0107]-[0111], Fig. 10, Claims 11-15
Claim 23: Paragraphs [0112]-[0122]
Claim 24: Paragraphs [0124]-[0129]
Claim 25: Paragraphs [0130],[0161]
Claim 26: Paragraphs [0002],[0015]-[0017],[0022]-[0024],[0176]
Claim 27: Paragraphs [0015]-[0017]
Claim 28: Paragraphs [0075]-[0078]
Claim 29: Paragraphs [0079]-[0083]
Claim 30: Paragraphs [0079]-[0089]
Claim 31: Paragraphs [0090]-[0092]
Claim 32: Paragraphs [0090]-[0092]

Applicant appreciatively acknowledges the courtesy of Examiners Rampuria and Trost in conducting a telephone interview with Applicant's practitioners, Gerry Elman and Michael Kahn, on May 19, 2004. The present amendment and remarks reflect the content of the interview.

The Examiner has cited Krasner et al. US Patent 6,665,541 B1 against various of the canceled claims as filed. Applicant points out that a fundamental aspect of the system disclosed in Krasner et al is that a satellite positioning system (SPS) receiver is co-located within a mobile cell phone. In the invention of this application, no SPS receiver is required In the mobile cell phone. Therefore, the disclosed invention of this application has an

advantage over the system disclosed in Krasner in that the mobile phone can be manufactured with reduced cost, complexity, and power consumption compared with that disclosed in Krasner.

In Krasner – the object is the synchronization of basestations by mobile phone where “the mobile cell phone is *equipped* with GPS receiver” to synchronize basestations. In the present application the synchronization of basestations is by GPS clock in every base station and therefore no changes are needed to standard mobile phone and therefore the mobile phone is simpler and cheaper.

In Krasner - mobile cell station can “determine its position either autonomously (e.g. a conventional hardware correlator based GPS receiver may by itself determine its position by reading ephemeris data from GPS satellites”) or it may determine its position with the assistance of a location server”. In the present application –all measurements are done at basestations only, with no need for GPS in the mobile phone.

Krasner discloses method of time tags of signals: “The cellular basestation provides time tags or markers in its signal which is being transmitted to the mobile system. This marker may be a marker that is an inherent part of the framing structure of the signal. “ . The mobile station may then time tag the marker in the cellular signal received from the basestation with GPS time, which represents, in GPS time, a time when the marker was received at the mobile system.” The present application discloses: time marker is tagged on return trip at the base station in supporting correlator.

In Krasner: “current time at the cellular basestation is updated from the GPS time which was associated with a transmitted marker which has been time tagged by the mobile ...” In the present application: All synchronization is done in all basestations by GPS receiver and clock.

In Krasner: “the cellular basestation or a remote entity which assists the cellular basestation may determine when to synchronize again.” In the present application: All synchronization is done by GPS receivers in all basestations automatically.

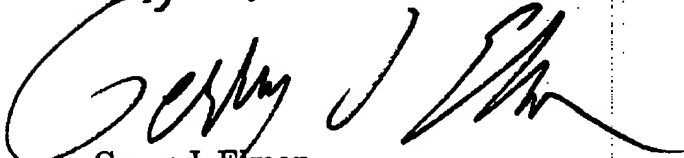
In Krasner a cellular basestation provides time tags in cellular or synchronization signal, like in the present application. But in the present application all measurement apparatus is in the base station: the supporting correlator in the base station tags the signal with GPS time and calculates propagation delay on return signal and sends data to location server.

The Examiner has cited Karr patent application publication US 2002/0022558 against some of the canceled claims as filed. Applicant points out that a difficulty in performing the teachings of Karr involves the need for extended setup time in the form of "calibration" or "training" to determine a priori a database of patterns for performing location analysis. See paragraphs [0108], [0110]. It appears that a system as taught by Karr would require a special setup for each geographical location for which it is used.

CONCLUSION

The Examiner is respectfully requested to reconsider the rejections in view of the claim amendments herein and the remarks above. A notice of allowability is earnestly solicited.

Respectfully submitted:



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